

CAP FOR BOTTLES

Field of invention

The present invention is related to the industry and particularly to a new construction of cap for bottles.

Background of invention

Decision referring to a self-locking cap [1], including one or more openings of the container and a movable lid of the container, is well known in the art. The lid has one or more openings and is capable of occupying first open position and second closed position. In the first open position, the openings of the container are leveled with the openings of the lid. In the second closed position, the container's openings are not leveled with the lid's openings. The liquid gets just between the container and the lid to place itself automatically under the lid in the closed position. Moreover, the inner side of the lid is equipped with one or more ledges, which plug the openings of the container when the lid is in a closed position.

This decision has the disadvantage of impossibility for using in the mass production of caps for bottles, in which mineral water is kept, due to the complex construction and the relatively expensive execution of the cap,

Summary of the invention

An object of the suggested decision is to eliminate the above mentioned disadvantages and to create maximum compact, simple and effective article – a new construction of cap, which is suitable for multiple use irrespective of the kind of the material

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the very cap as well as the bottle to which it is fastened is made of.

According to the invention, a cap for bottle is created, consisting of corps and elastic gasket, which could not be disassembled from one another.

Two ledges are formed at the neck of the bottle symmetrically at the two sides under 180^0 from one another.

Shoulders are formed at the two sides of the corps of the cap, which are fastened in the channels for the ledges at the bottleneck. At the bottom end of the shoulders, at the place where they contact to the ledges, two channels with lobes and pits are formed. At the bottom end of the shoulders of the cap as well, symmetrically at the two sides, swelled profiles are formed. The two shoulders of the corps are connected by axle. A section for pulling is formed on the axle.

The elastic gasket is made of material, allowing elastic deformation under compression.

The advantage of this decision is the maximal compactness, simplicity and efficiency of the article under an absolutely new construction.

Brief description of the drawings

Figure 1 shows the cap in view parallel to the shoulders.

Figure 2 is a view of a bottle with the cap in open position.

Figure 3 is view, which is parallel to the shoulders of the cap.

Figure 4 is a vertical section through the ledges of the bottle.

Examples

The invention is illustrated by the following example. The cap can be produced from different materials – metal, porcelain,

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plastic and other synthetic materials. It consists of corps 1 and elastic gasket 2, which could not be disassembled from one another.

The elastic gasket 2 is made of material allowing elastic deformation under compression.

Ledges are formed 5 on the neck 11 of the bottle, symmetrically at the two sides under 180^0 from one another, around which the cap is moving.

The elastic gasket 2 in its bottom part is formed as a part of sphere.

At the two sides of the cap shoulders 4 are formed, which are fastened to the ledges 5 on the neck 11 of the bottle. Swelled profiles 6 are formed at the bottom end of the shoulders 4 of the cap symmetrically at the two sides. At the same place channels 7 with lobes 8 and pits 10 are developed too. The two shoulders 4 of the corps 1 of the cap are connected by axle 9. A section for pulling 12 is formed on the axle 9.

Application

The cap can be used for bottles for liquids with quick turnover.

The corps of the cap covers the bottle's mouth. In closed position the elastic gasket in its bottom part contacts the edge of the bottle's mouth. The gasket is pressed and creates pressure of strain upon the cap, which does not let it move loosely. In case of pulling of the swelled profiles, formed in the bottom end of the cap's shoulders, the cap moves according to the degree of freedom, ensured by the form of the channels and ledges installed in them. The opening can also be realized by pulling of the axle, connecting the two shoulders. This section is developed with size, allowing the placing of a finger upon it and

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giving possibility for opening of the bottle by pulling. Thus the cap has the possibility for twirling around the ledges and by the means of the lobes, formed at the bottom end of the channels, fixes itself in final position in such way that doesn't allow it to close in case of lurching of the bottle.

The closing of the bottle takes place in the opposite way. The cap positions itself upon the mouth of the bottle and by pressing on the axle, connecting the two shoulders of the cap's corps, the ledges go into the pits and the elastic gasket deforms itself and plugs closely the neck of the bottle.

The cap does not detach itself from the bottle, because it is fastened movably to the neck of the bottle through its shoulders. The new construction of the cap allows multiple opening and closing of the bottle without detachment of the cap from it. The bottle can be opened and closed with one hand – the one that holds it. The plugging is ensured by the compressed elastic gasket, which creates strain of pressure upon the held by the shoulders cylindrical corps and upon the neck of the bottle simultaneously. The ring, which is fastened to the corpse of the cap by means of thin threads, serves as a guarantee for the customer that the bottle has not been opened before being bought. At the time of the first opening of the bottle, the threads are torn and release the movement of the cap.

Literature: US 5950881